Abstract

In this paper, we present a new approach to face recognition based on the combination of feature extraction methods, such as two-dimensional DWT-2DPCA and DWT-2DLDA, with a probabilistic neural network. This later is used to classify the features matrix extracts for space data created by Two-dimensional Subspace Analysis. The technique 2D-DWT is used to eliminate the illumination, noise and redundancy of face in order to reduce calculations of the probabilistic neural network operations and improve a face recognition system in accuracy and computation time. The proposed approach is tested on ORL and FEI face databases. Experimental results on these databases demonstrated the effectiveness of the proposed approach for face recognition with high accuracy compared with previous methods.

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Index Terms

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Keywords
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